

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

Please cancel claims 6 - 21. ✓

Please add new claims 22 - 26: ✓

Q 3

22. A pesticidal composition comprising a pesticidally effective amount of at least one compound according to claim 1 and an extender or surface-active agent or mixture thereof.
23. A herbicidal composition comprising a herbicidally effective amount of at least one compound according to claim 1 and an extender or surface-active agent or mixture thereof.
24. A method of combatting pests comprising applying to pests and/or their environment a pesticidally effective amount of at least one compound according to claim 1.
25. A method of combatting weeds comprising applying to weeds and/or their environment a herbicidally effective amount of at least one compound according to claim 1.
26. A process for preparing a pesticidal composition or a herbicidal composition, said process comprising mixing an effective amount therefor of at least one compound according to claim 1 with an extender or surface-active agent or mixture thereof.

REMARKS

Claims 1-4 have been amended to elect a species not previously examined - see original restriction requirement of parent application 08/945,664, Paper No. 5 (dated 28 September 1998).

Claims 22-26 have been added as claims which are more in compliance with U.S. practice and replace original claims 17-21; no change in scope is intended.

It is believed that no new matter has been added. Claims 1-5 and 22-26 are now pending.

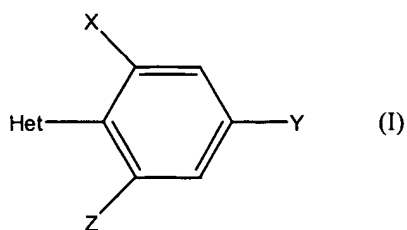
Early and favorable action is earnestly solicited.

Respectfully submitted,  
NORRIS McLAUGHLIN & MARCUS, P.A.

**COPY OF CLAIMS SHOWING AMENDMENTS**

**(Claims 1-5 and 22-26 are now pending)**

1. Compounds of the formula (I)



in which

X represents halogen,

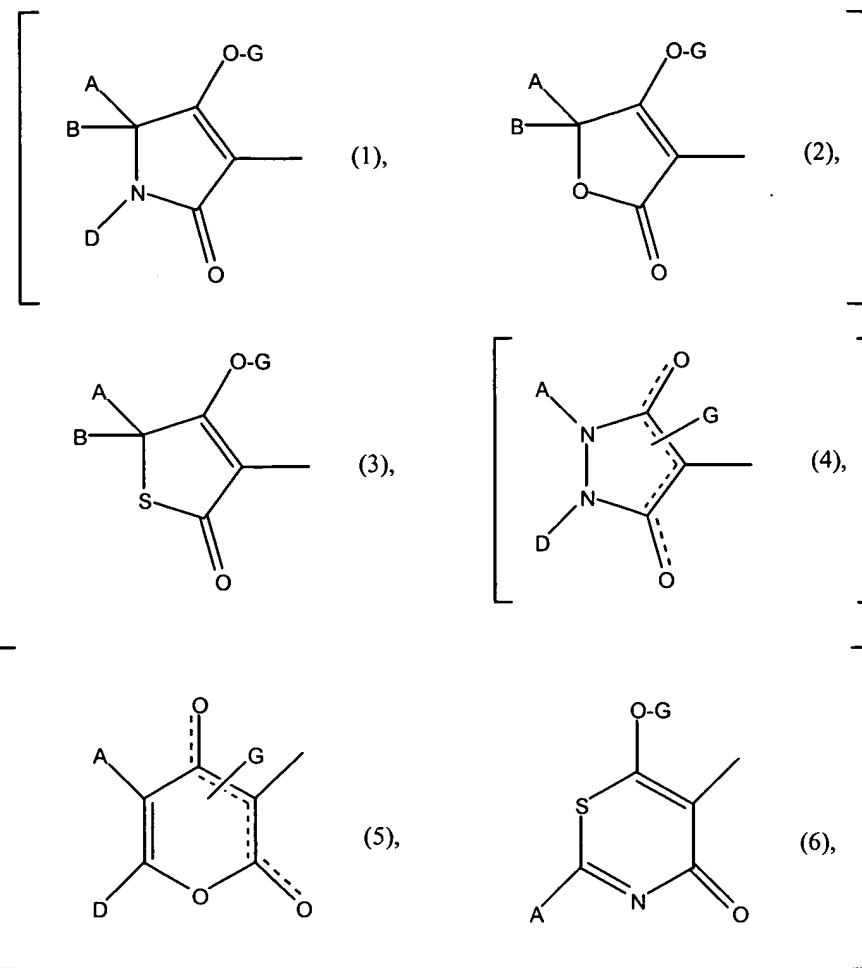
Y represents halogen or alkyl,

Z represents halogen or alkyl,

with the proviso that always one of the radicals Y and Z represents halogen and the other represents alkyl,

Het represents **[one of the groups]**

1001695-12401  
T04T2T" 569/T001



in which

- A represents hydrogen, or represents alkyl, alkenyl, alkoxyalkyl, polyalkoxyalkyl or alkylthioalkyl, each of which is optionally substituted by halogen, or represents in each case saturated or unsaturated and optionally substituted cycloalkyl or heterocyclyl, or represents aryl, arylalkyl or hetaryl, each of which is optionally substituted by halogen, alkyl, halogenoalkyl, alkoxy, halogenoalkoxy, cyano or nitro,

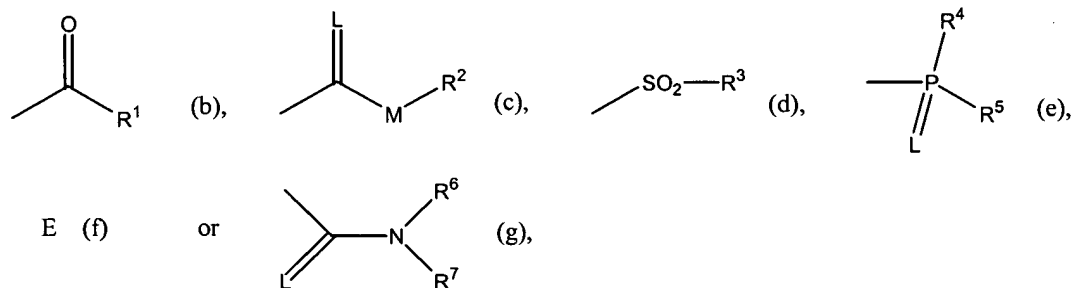
B represents hydrogen, alkyl or alkoxyalkyl, or

A and B together with the carbon atom to which they are bonded represent a saturated or unsaturated, optionally substituted carbocycle or heterocycle,

D represents hydrogen or an optionally substituted radical from the series consisting of alkyl, alkenyl, alkynyl, alkoxyalkyl, polyalkoxyalkyl, alkylthioalkyl, saturated or unsaturated cycloalkyl, saturated or unsaturated heterocyclyl, arylalkyl, aryl, hetarylalkyl or hetaryl, or

A and D together with the atoms to which they are bonded represent a saturated or unsaturated and optionally substituted carbocycle or heterocycle,

G [in the event that Het represents one of the radicals (1), (2), (3), (5) or (6), represents hydrogen (a) or, in the event that Het represents one of the radicals (1), (2), (3), (4), (5) or (6), represents one of the groups] represents hydrogen (a).



in which

E represents a metal ion equivalent or an ammonium ion,

L represents oxygen or sulphur,

M represents oxygen or sulphur,

R¹ represents alkyl, alkenyl, alkoxyalkyl, alkylthioalkyl or polyalkoxyalkyl, each of

which is optionally substituted by halogen, or represents cycloalkyl or heterocyclyl, each of which is optionally substituted by halogen, alkyl or alkoxy, or represents in each case optionally substituted phenyl, phenylalkyl, hetaryl, phenoxyalkyl or hetaryloxyalkyl,

R<sup>2</sup> represents alkyl, alkenyl, alkoxyalkyl or polyalkoxyalkyl, each of which is optionally substituted by halogen, or represents in each case optionally substituted cycloalkyl, phenyl or benzyl,

R<sup>3</sup>, R<sup>4</sup> and R<sup>5</sup> independently of one another represent alkyl, alkoxy, alkylamino, dialkylamino, alkylthio, alkenylthio or cycloalkylthio, each of which is optionally substituted by halogen, or in each case represent optionally substituted phenyl, benzyl, phenoxy or phenylthio,

R<sup>6</sup> and R<sup>7</sup> independently of one another represent hydrogen, or represent alkyl, cycloalkyl, alkenyl, alkoxy or alkoxyalkyl, each of which is optionally substituted by halogen, or represent in each case optionally substituted phenyl or benzyl, or together with the N atom to which they are bonded represent an optionally substituted cycle which optionally contains oxygen or sulphur.

2. Compound of the formula (I) according to claim 1 in which

X represents halogen,

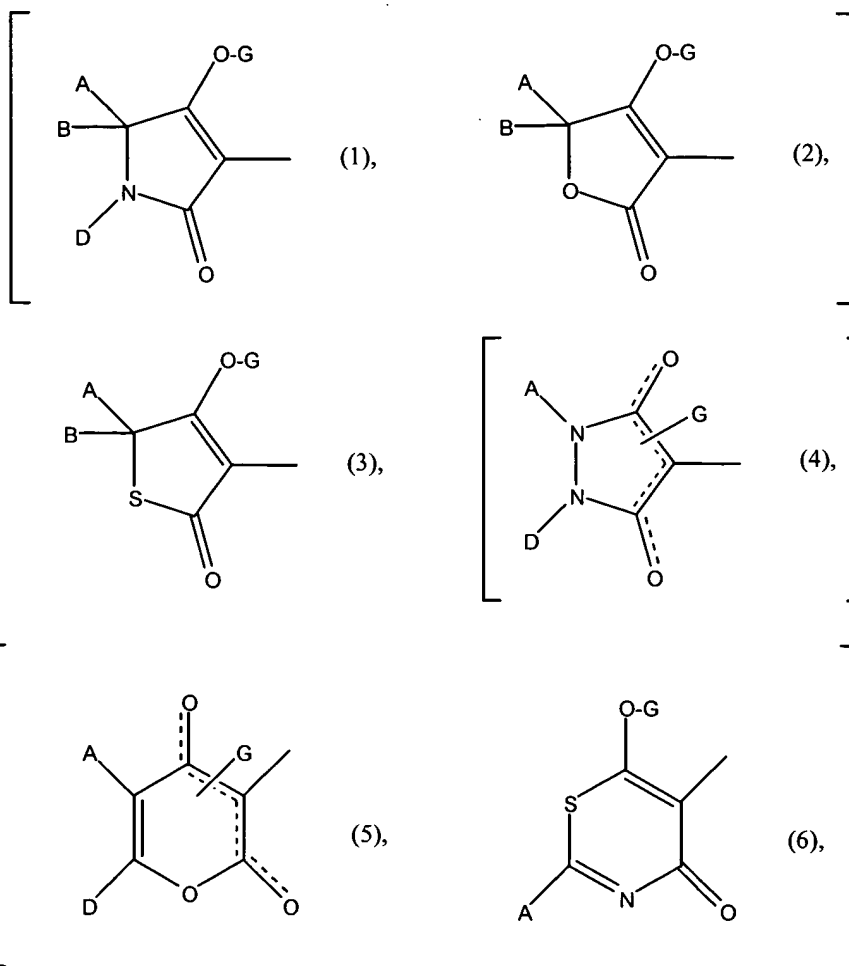
Y represents halogen or C<sub>1</sub>-C<sub>6</sub>-alkyl,

Z represents halogen or C<sub>1</sub>-C<sub>6</sub>-alkyl,

where always one of the substituents Y and Z represent halogen, while the other represents alkyl,

10017695-121401  
FOHET-5697FOOT

Het represents [one of the groups]



A represents hydrogen, or represents C<sub>1</sub>-C<sub>12</sub>-alkyl, C<sub>2</sub>-C<sub>8</sub>-alkenyl, C<sub>1</sub>-C<sub>10</sub>-alkoxy-C<sub>1</sub>-C<sub>8</sub>-alkyl, poly-C<sub>1</sub>-C<sub>8</sub>-alkoxy-C<sub>1</sub>-C<sub>8</sub>-alkyl or C<sub>1</sub>-C<sub>10</sub>-alkylthio-C<sub>1</sub>-C<sub>6</sub>-alkyl, each of which is optionally substituted by halogen, or represents C<sub>3</sub>-C<sub>8</sub>-cycloalkyl which is optionally substituted by halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl or C<sub>1</sub>-C<sub>6</sub>-alkoxy and in which

one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur, or represents phenyl, naphthyl, phenyl-C<sub>1</sub>-C<sub>6</sub>-alkyl or hetaryl having 5 or 6 ring atoms and one to three hetero atoms from the series consisting of oxygen, sulphur and nitrogen, in each case optionally substituted by halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-halogenoalkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-halogenoalkoxy, cyano or nitro,

- B represents hydrogen, C<sub>1</sub>-C<sub>12</sub>-alkyl or C<sub>1</sub>-C<sub>8</sub>-alkoxy-C<sub>1</sub>-C<sub>6</sub>-alkyl, or
- A, B and the carbon atom to which they are bonded represent C<sub>3</sub>-C<sub>10</sub>-cycloalkyl or C<sub>5</sub>-C<sub>10</sub>-cycloalkenyl in each of which a methylene group is optionally replaced by oxygen or sulphur and which are optionally substituted by C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, C<sub>1</sub>-C<sub>8</sub>-halogenoalkyl, C<sub>1</sub>-C<sub>8</sub>-alkoxy, C<sub>1</sub>-C<sub>8</sub>-alkylthio, halogen or phenyl, or
- A, B and the carbon atom to which they are bonded represent C<sub>5</sub>-C<sub>6</sub>-cycloalkyl which is substituted by an alkylenediyl group which optionally contains one or two oxygen and/or sulphur atoms or by an alkylenedioxy or by an alkylenedithiyl group, this group, together with the carbon atom to which it is bonded forming a further five to eight-membered ring, or
- A, B and the carbon atom to which they are bonded represent C<sub>3</sub>-C<sub>8</sub>-cycloalkyl or C<sub>5</sub>-C<sub>8</sub>-cycloalkenyl in which two substituents together with the carbon atoms to which they are bonded represent C<sub>3</sub>-C<sub>6</sub>-alkanediyl, C<sub>3</sub>-C<sub>6</sub>-alkenediyl or C<sub>4</sub>-C<sub>6</sub>-alkanedienediyl, each of which is optionally substituted by C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy or halogen and in which in each case one methylene group is optionally replaced by oxygen or sulphur,
- D represents hydrogen, C<sub>1</sub>-C<sub>12</sub>-alkyl, C<sub>3</sub>-C<sub>8</sub>-alkenyl, C<sub>3</sub>-C<sub>8</sub>-alkinyl, C<sub>1</sub>-C<sub>10</sub>-alkoxy-

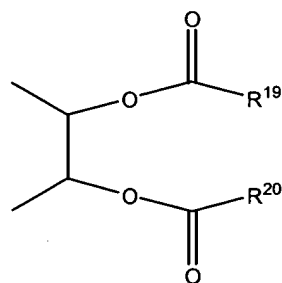
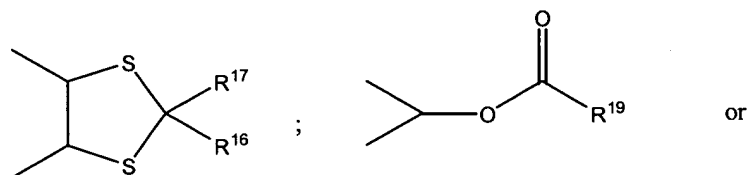
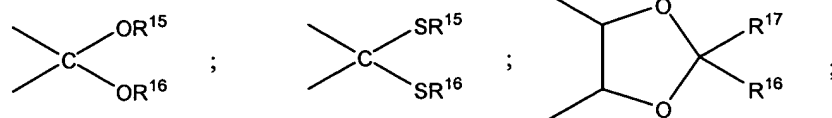
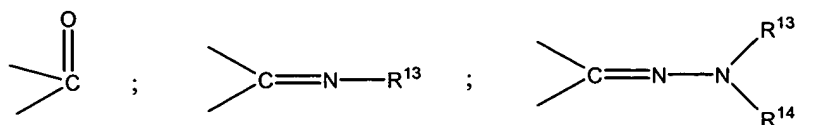
10017695-121401



C<sub>2</sub>-C<sub>8</sub>-alkyl, poly-C<sub>1</sub>-C<sub>8</sub>-alkoxy-C<sub>2</sub>-C<sub>8</sub>-alkyl or C<sub>1</sub>-C<sub>10</sub>-alkylthio-C<sub>2</sub>-C<sub>8</sub>-alkyl, each of which is optionally substituted by halogen, or represents C<sub>3</sub>-C<sub>8</sub>-cycloalkyl which is optionally substituted by halogen, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy or C<sub>1</sub>-C<sub>4</sub>-halogenoalkyl and in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur, or represents phenyl, hetaryl having 5 to 6 ring atoms and one or two hetero atoms from the series consisting of oxygen, sulphur and nitrogen, phenyl-C<sub>1</sub>-C<sub>6</sub>-alkyl or hetaryl-C<sub>1</sub>-C<sub>6</sub>-alkyl having 5 to 6 ring atoms and one to two hetero atoms from the series consisting of oxygen, sulphur and nitrogen, in each case optionally substituted by halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-halogenoalkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-halogenoalkoxy, cyano or nitro, or

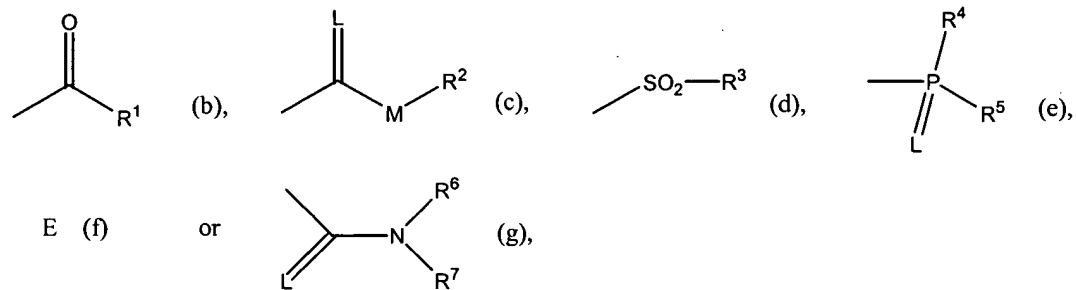
A and D together represent a C<sub>3</sub>-C<sub>6</sub>-alkanediyl, C<sub>3</sub>-C<sub>6</sub>-alkenediyl or C<sub>4</sub>-C<sub>6</sub>-alkanedienediyl group in each of which one methylene group is optionally replaced by oxygen or sulphur and which is in each case optionally substituted by halogen, hydroxyl, mercapto, or by C<sub>1</sub>-C<sub>10</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>3</sub>-C<sub>7</sub>-cycloalkyl, phenyl or benzyloxy, each of which is optionally substituted by halogen, or by further C<sub>3</sub>-C<sub>6</sub>-alkanediyl, C<sub>3</sub>-C<sub>6</sub>-alkenediyl or C<sub>4</sub>-C<sub>6</sub>-alkanedienediyl group which forms a fused ring and in each of which one methylene group is optionally replaced by oxygen or sulphur and which is optionally substituted by C<sub>1</sub>-C<sub>6</sub>-alkyl or in which two adjacent substituents together with the carbon atoms to which they are bonded optionally form a further saturated or unsaturated carbocycle having 5 or 6 ring atoms, or

A and D together represent a C<sub>3</sub>-C<sub>6</sub>-alkanediyl or C<sub>3</sub>-C<sub>6</sub>-alkenediyl group each of which one of the following groups



is optionally present;

- G [in the event that Het represents one of the radicals (1), (2), (3), (5) or (6), represents hydrogen (a) or, in the event that Het represents one of the radicals (1), (2), (3), (4), (5) or (6), represents one of the groups] represents hydrogen (a),



in which

E represents a metal ion equivalent or an ammonium ion,

L represents oxygen or sulphur and

M represents oxygen or sulphur,

R<sup>1</sup> represents C<sub>1</sub>-C<sub>20</sub>-alkyl, C<sub>2</sub>-C<sub>20</sub>-alkenyl, C<sub>1</sub>-C<sub>8</sub>-alkoxy-C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>1</sub>-C<sub>8</sub>-alkylthio-C<sub>1</sub>-C<sub>8</sub>-alkyl or poly-C<sub>1</sub>-C<sub>8</sub>-alkoxy-C<sub>1</sub>-C<sub>8</sub>-alkyl, each of which is optionally substituted by halogen, or represents C<sub>3</sub>-C<sub>8</sub>-cycloalkyl which is optionally substituted by halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl or C<sub>1</sub>-C<sub>6</sub>-alkoxy and in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur,

or represents phenyl which is optionally substituted by halogen, cyano, nitro, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-halogenoalkyl, C<sub>1</sub>-C<sub>6</sub>-halogenoalkoxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio or C<sub>1</sub>-C<sub>6</sub>-alkylsulphonyl,

or represents phenyl-C<sub>1</sub>-C<sub>6</sub>-alkyl which is optionally substituted by halogen, nitro, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-halogenoalkyl or C<sub>1</sub>-C<sub>6</sub>-halogenoalkoxy,

or represents 5- or 6-membered hetaryl having one or two hetero atoms from the series consisting of oxygen, sulphur and nitrogen which is optionally substituted by halogen or C<sub>1</sub>-C<sub>6</sub>-alkyl,

or represents phenoxy-C<sub>1</sub>-C<sub>6</sub>-alkyl which is optionally substituted by halogen or C<sub>1</sub>-C<sub>6</sub>-alkyl,

or represents 5- or 6-membered heteraryl-C<sub>1</sub>-C<sub>6</sub>-alkyl having one or two hetero atoms from the series consisting of oxygen, sulphur and nitrogen which is optionally substituted by halogen, amino or C<sub>1</sub>-C<sub>6</sub>-alkyl,

R<sup>2</sup> represents C<sub>1</sub>-C<sub>20</sub>-alkyl, C<sub>2</sub>-C<sub>20</sub>-alkenyl, C<sub>1</sub>-C<sub>8</sub>-alkoxy-C<sub>2</sub>-C<sub>8</sub>-alkyl or poly-C<sub>1</sub>-C<sub>8</sub>-alkoxy-C<sub>2</sub>-C<sub>8</sub>-alkyl, each of which is optionally substituted by halogen,

or represents C<sub>3</sub>-C<sub>8</sub>-cycloalkyl which is optionally substituted by halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl or C<sub>1</sub>-C<sub>6</sub>-alkoxy, or

represents phenyl or benzyl, each of which is optionally substituted by halogen, cyano, nitro, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-halogenoalkyl, C<sub>1</sub>-C<sub>6</sub>-halogenoalkoxy,

R<sup>3</sup> represents C<sub>1</sub>-C<sub>8</sub>-alkyl which is optionally substituted by halogen, or represents phenyl or benzyl, each of which is optionally substituted by halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>4</sub>-halogenoalkyl, C<sub>1</sub>-C<sub>4</sub>-halogenoalkoxy, cyano or nitro,

R<sup>4</sup> and R<sup>5</sup> independently of one another represent C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>1</sub>-C<sub>8</sub>-alkoxy, C<sub>1</sub>-C<sub>8</sub>-alkylamino, di-(C<sub>1</sub>-C<sub>8</sub>-alkyl)amino, C<sub>1</sub>-C<sub>8</sub>-alkylthio or C<sub>2</sub>-C<sub>8</sub>-alkenylthio, each of which is optionally substituted by halogen, or represent phenyl, phenoxy or phenylthio, each of which is optionally substituted by halogen, nitro, cyano, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>1</sub>-C<sub>4</sub>-halogenoalkoxy, C<sub>1</sub>-C<sub>4</sub>-alkylthio, C<sub>1</sub>-C<sub>4</sub>-halogenoalkylthio, C<sub>1</sub>-C<sub>4</sub>-alkyl or C<sub>1</sub>-C<sub>4</sub>-halogenoalkyl,

R<sup>6</sup> and R<sup>7</sup> independently of one another represent hydrogen, or represent C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, C<sub>1</sub>-C<sub>8</sub>-alkoxy, C<sub>3</sub>-C<sub>8</sub>-alkenyl or C<sub>1</sub>-C<sub>8</sub>-alkoxy-C<sub>2</sub>-C<sub>8</sub>-alkyl, each of which is optionally substituted by halogen, or represent phenyl or benzyl, each of

which is optionally substituted by halogen, C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>1</sub>-C<sub>8</sub>-halogenoalkyl or C<sub>1</sub>-C<sub>8</sub>-alkoxy, or together represent a C<sub>3</sub>-C<sub>6</sub>-alkylene radical which is optionally substituted by C<sub>1</sub>-C<sub>6</sub>-alkyl and in which one methylene groups is optionally replaced by oxygen or sulphur,

R<sup>13</sup> represents hydrogen, or represents C<sub>1</sub>-C<sub>8</sub>-alkyl or C<sub>1</sub>-C<sub>8</sub>-alkoxy, each of which is optionally substituted by halogen, or represents C<sub>3</sub>-C<sub>8</sub>-cycloalkyl which is optionally substituted by halogen, C<sub>1</sub>-C<sub>4</sub>-alkyl or C<sub>1</sub>-C<sub>4</sub>-alkoxy and in which one methylene group is optionally replaced by oxygen or sulphur, or represents phenyl, phenyl-C<sub>1</sub>-C<sub>4</sub>-alkyl or phenyl-C<sub>1</sub>-C<sub>4</sub>-alkoxy, each of which is optionally substituted by halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>4</sub>-halogenoalkyl, C<sub>1</sub>-C<sub>4</sub>-halogenoalkoxy, nitro or cyano,

R<sup>14</sup> represents hydrogen or C<sub>1</sub>-C<sub>8</sub>-alkyl or

R<sup>13</sup> and R<sup>14</sup> together represent C<sub>4</sub>-C<sub>6</sub>-alkanediyl,

R<sup>15</sup> and R<sup>16</sup> are identical or different and represent C<sub>1</sub>-C<sub>6</sub>-alkyl or

R<sup>15</sup> and R<sup>16</sup> together represent a C<sub>2</sub>-C<sub>4</sub>-alkanediyl radical which is optionally substituted by C<sub>1</sub>-C<sub>6</sub>-alkyl or by phenyl which is optionally substituted by halogen, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-halogenoalkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>1</sub>-C<sub>4</sub>-halogenoalkoxy, nitro or cyano,

R<sup>17</sup> and R<sup>18</sup> independently of one another represent hydrogen, or represent C<sub>1</sub>-C<sub>8</sub>-alkyl which is optionally substituted by halogen, or represent phenyl which is optionally substituted by halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>4</sub>-halogenoalkyl, C<sub>1</sub>-C<sub>4</sub>-halogenoalkoxy, nitrogen or cyano, or

R<sup>17</sup> and R<sup>18</sup> together with the carbon atom to which they are bonded represent C<sub>5</sub>-C<sub>7</sub>-

cycloalkyl which is optionally substituted by C<sub>1</sub>-C<sub>4</sub>-alkyl or C<sub>1</sub>-C<sub>4</sub>-alkoxy and in which one methylene group is optionally replaced by oxygen or sulphur and

R<sup>19</sup> and R<sup>20</sup> independently of one another represent C<sub>1</sub>-C<sub>10</sub>-alkyl, C<sub>2</sub>-C<sub>10</sub>-alkenyl, C<sub>1</sub>-C<sub>10</sub>-alkoxy, C<sub>1</sub>-C<sub>10</sub>-alkylamino, C<sub>3</sub>-C<sub>10</sub>-alkenylamino, di-(C<sub>1</sub>-C<sub>10</sub>-alkyl)amino or di-(C<sub>3</sub>-C<sub>10</sub>-alkenyl)amino.

3. Compound of the formula (I) according to claim 1 in which

X represents fluorine, chlorine or bromine,

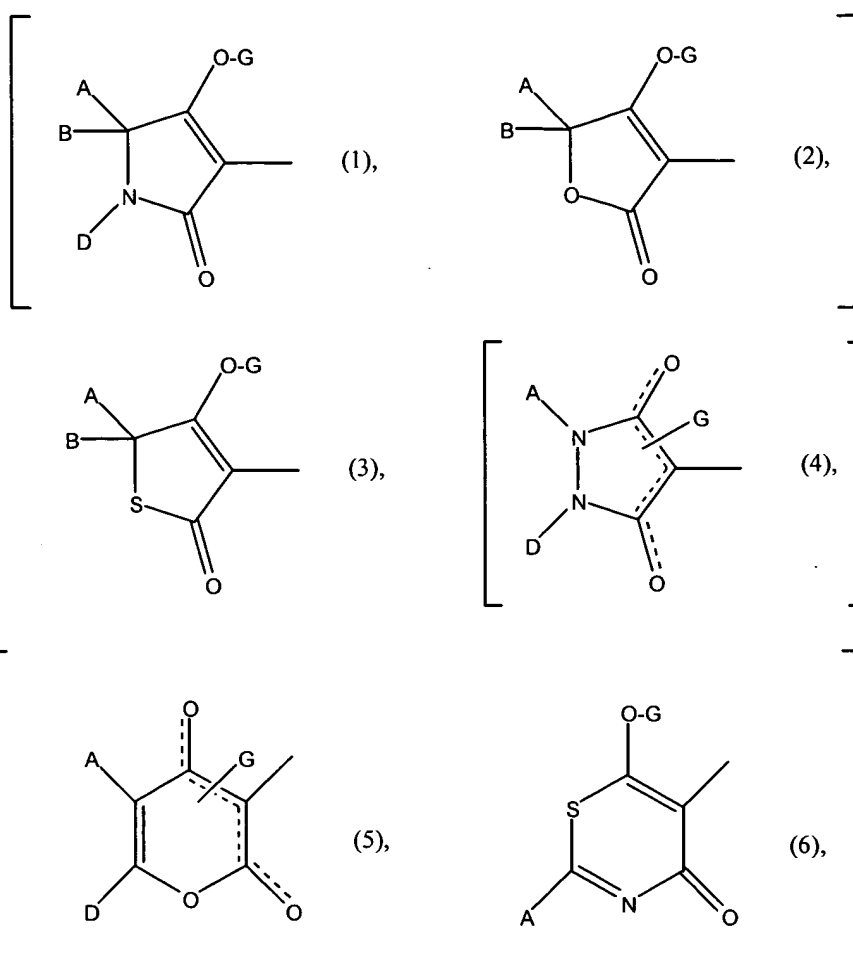
Y represents fluorine, chlorine, bromine or C<sub>1</sub>-C<sub>4</sub>-alkyl,

Z represents fluorine, chlorine, bromine or C<sub>1</sub>-C<sub>4</sub>-alkyl,

where always one of the substituents Y and Z represent halogen, while the other represents alkyl,

Het represents **[one of the groups]**

10017695-121401  
TOTET 5697001



- A represents hydrogen, or represents C<sub>1</sub>-C<sub>10</sub>-alkyl, C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>1</sub>-C<sub>8</sub>-alkoxy-C<sub>1</sub>-C<sub>6</sub>-alkyl, poly-C<sub>1</sub>-C<sub>6</sub>-alkoxy-C<sub>1</sub>-C<sub>6</sub>-alkyl or C<sub>1</sub>-C<sub>8</sub>-alkylthio-C<sub>1</sub>-C<sub>6</sub>-alkyl, each of which is optionally substituted by fluorine or chlorine, or represents C<sub>3</sub>-C<sub>7</sub>-cycloalkyl which is optionally substituted by fluorine, chlorine, C<sub>1</sub>-C<sub>4</sub>-alkyl or C<sub>1</sub>-C<sub>4</sub>-alkoxy and in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur, or represents phenyl, furanyl, pyridyl, imidazolyl, triazolyl, pyrazolyl, indolyl, thiazolyl, thienyl or phenyl-C<sub>1</sub>-C<sub>4</sub>-alkyl each of which is optionally substituted by fluorine, chlorine, bromine, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-halogenoalkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>1</sub>-C<sub>4</sub>-halogenoalkoxy,

cyano or nitro,

- B represents hydrogen, C<sub>1</sub>-C<sub>10</sub>-alkyl or C<sub>1</sub>-C<sub>6</sub>-alkoxy-C<sub>1</sub>-C<sub>4</sub>-alkyl, or
- A, B and the carbon atom to which they are bonded represent C<sub>3</sub>-C<sub>8</sub>-cycloalkyl or C<sub>5</sub>-C<sub>8</sub>-cycloalkenyl in each of which a methylene group is optionally replaced by oxygen or sulphur and which are optionally substituted by C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, C<sub>1</sub>-C<sub>3</sub>-halogenoalkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, fluorine, chlorine or phenyl, or
- A, B and the carbon atom to which they are bonded represent C<sub>5</sub>-C<sub>6</sub>-cycloalkyl which is substituted by an alkylenediyl group which optionally contains one or two oxygen and/or sulphur atoms or by an alkylenedioxy or by an alkylenedithioyl group, this group, together with the carbon atom to which it is bonded forming a further five to seven-membered ring, or
- A, B and the carbon atom to which they are bonded represent C<sub>3</sub>-C<sub>6</sub>-cycloalkyl or C<sub>5</sub>-C<sub>6</sub>-cycloalkenyl in which two substituents together with the carbon atoms to which they are bonded represent C<sub>3</sub>-C<sub>5</sub>-alkanediyl, C<sub>3</sub>-C<sub>5</sub>-alkenediyl or butadienediyl, each of which is optionally substituted by C<sub>1</sub>-C<sub>5</sub>-alkyl, C<sub>1</sub>-C<sub>5</sub>-alkoxy, fluorine, chlorine or bromine and in which in each case one methylene group is optionally replaced by oxygen or sulphur,
- D represents hydrogen, C<sub>1</sub>-C<sub>10</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>3</sub>-C<sub>6</sub>-alkinyl, C<sub>1</sub>-C<sub>8</sub>-alkoxy-C<sub>2</sub>-C<sub>6</sub>-alkyl, poly-C<sub>1</sub>-C<sub>6</sub>-alkoxy-C<sub>2</sub>-C<sub>6</sub>-alkyl or C<sub>1</sub>-C<sub>8</sub>-alkylthio-C<sub>2</sub>-C<sub>6</sub>-alkyl, each of which is optionally substituted by fluorine or chlorine, or represents C<sub>3</sub>-C<sub>7</sub>-cycloalkyl which is optionally substituted by fluorine, chlorine, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy or C<sub>1</sub>-C<sub>2</sub>-halogenoalkyl and in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur,

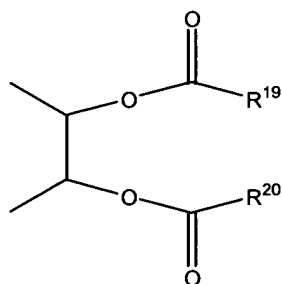
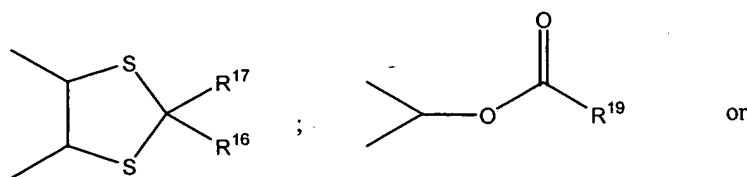
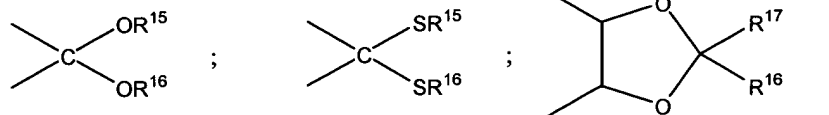
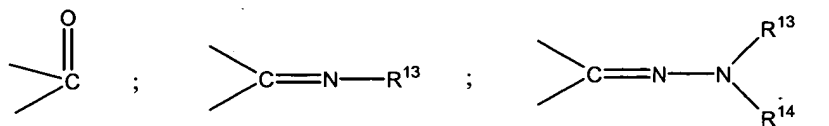
10017695-121401



or represents phenyl, furanyl, imidazolyl, pyridyl, thiazolyl, pyrazolyl, pyrimidyl, pyrrolyl, thienyl, triazolyl or phenyl-C<sub>1</sub>-C<sub>4</sub>-alkyl each of which is optionally substituted by fluorine, chlorine, bromine, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-halogenoalkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>1</sub>-C<sub>4</sub>-halogenoalkoxy, cyano or nitro, or

A and D together represent a C<sub>3</sub>-C<sub>5</sub>-alkanediyl or C<sub>3</sub>-C<sub>5</sub>-alkenediyl group in each of which one methylene group is optionally replaced by oxygen or sulphur and which is in each case optionally substituted by fluorine, chlorine, hydroxyl, mercapto, or by C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>1</sub>-C<sub>4</sub>-alkylthio, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, phenyl or benzyloxy, each of which is optionally substituted by fluorine or chlorine, or

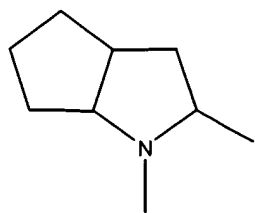
in which in each case one of the following groups



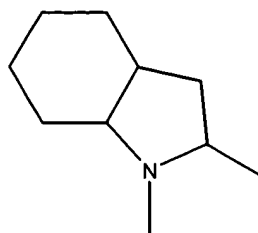
is optionally present;

or A and D (in the case of the compounds of formula (I-1)) together with the atoms to which they are bonded represent one of the groups AD-1 to AD-27

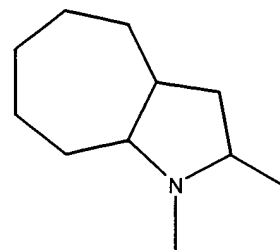
10017695.121401



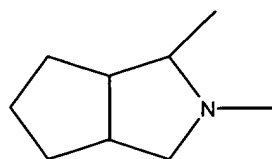
AD-1



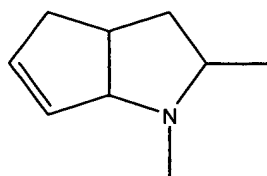
AD-2



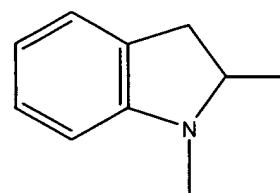
AD-3



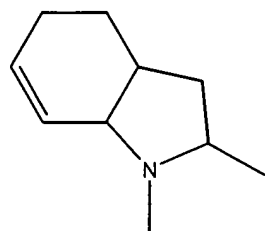
AD-4



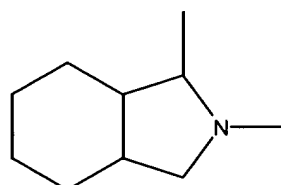
AD-5



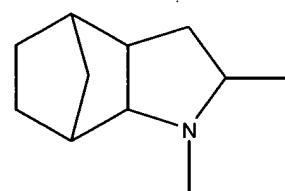
AD-6



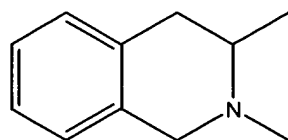
AD-7



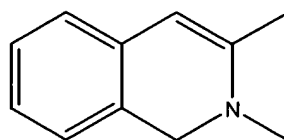
AD-8



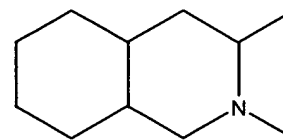
AD-9



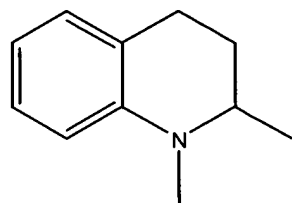
AD-10



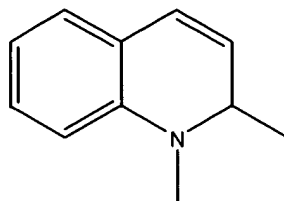
AD-11



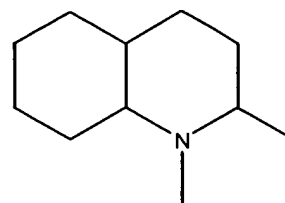
AD-12



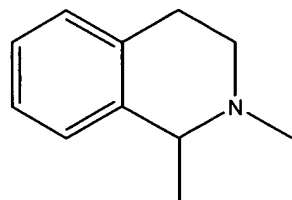
AD-13



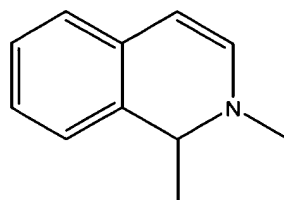
AD-14



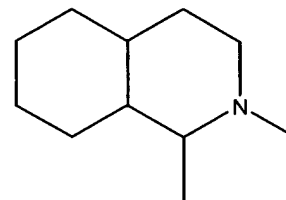
AD-15



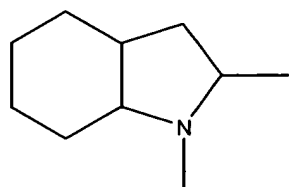
AD-16



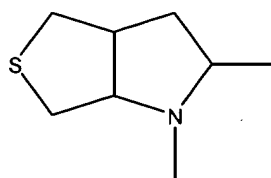
AD-17



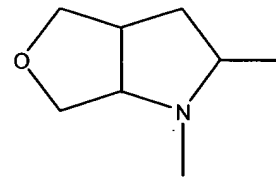
AD-18



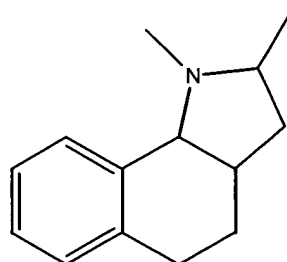
AD-19



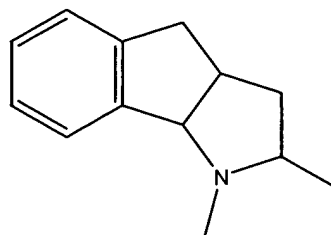
AD-20



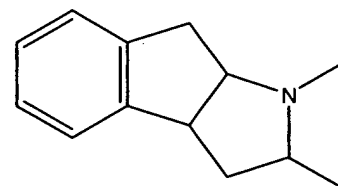
AD-21



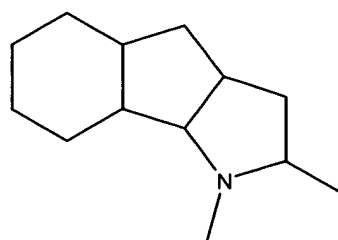
AD-22



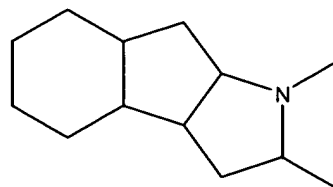
AD-23



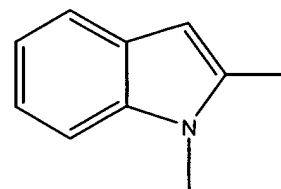
AD-24



AD-25

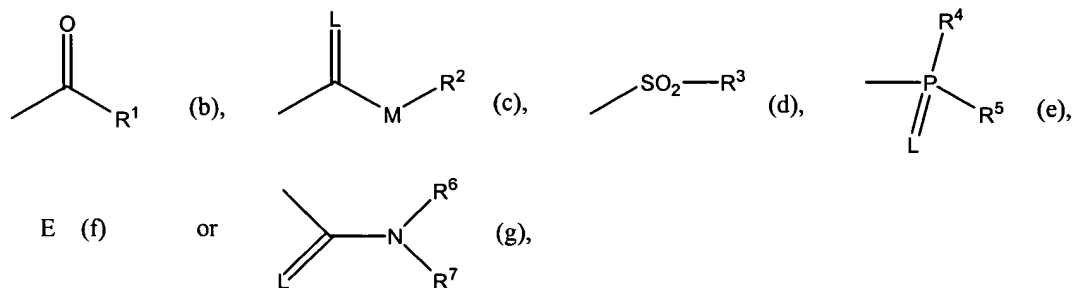


AD-26



AD-27

G [in the event that Het represents one of the radicals (1), (2), (3), (5) or (6), represents hydrogen (a) or, in the event that Het represents one of the radicals (1), (2), (3), (4), (5) or (6), represents one of the groups] represents hydrogen (a).



in which

- E represents a metal ion equivalent or an ammonium ion,  
L represents oxygen or sulphur and  
M represents oxygen or sulphur,

R<sup>1</sup> represents C<sub>1</sub>-C<sub>16</sub>-alkyl, C<sub>2</sub>-C<sub>16</sub>-alkenyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkylthio-C<sub>1</sub>-C<sub>6</sub>-alkyl or poly-C<sub>1</sub>-C<sub>6</sub>-alkoxy-C<sub>1</sub>-C<sub>6</sub>-alkyl, each of which is optionally substituted by fluorine or chlorine, or represents C<sub>3</sub>-C<sub>7</sub>-cycloalkyl which is optionally substituted by fluorine, chlorine, C<sub>1</sub>-C<sub>5</sub>-alkyl or C<sub>1</sub>-C<sub>5</sub>-alkoxy and in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur,

or represents phenyl which is optionally substituted by fluorine, chlorine, bromine, cyano, nitro, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>1</sub>-C<sub>3</sub>-halogenoalkyl, C<sub>1</sub>-C<sub>3</sub>-halogenoalkoxy, C<sub>1</sub>-C<sub>4</sub>-alkylthio or C<sub>1</sub>-C<sub>4</sub>-alkylsulphonyl,

or represents phenyl-C<sub>1</sub>-C<sub>4</sub>-alkyl which is optionally substituted by fluorine, chlorine, bromine, nitro, cyano, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>1</sub>-C<sub>3</sub>-halogenoalkyl or C<sub>1</sub>-C<sub>3</sub>-halogenoalkoxy,

or represents pyrazolyl, thiazolyl, pyridyl, pyrimidyl, furanyl or thienyl, each of which is optionally substituted by fluorine, chlorine, bromine or C<sub>1</sub>-C<sub>4</sub>-alkyl,

or represents phenoxy-C<sub>1</sub>-C<sub>5</sub>-alkyl which is optionally substituted by fluorine, chlorine, bromine or C<sub>1</sub>-C<sub>4</sub>-alkyl,

or represents pyridyloxy-C<sub>1</sub>-C<sub>5</sub>-alkyl, pyrimidyloxy-C<sub>1</sub>-C<sub>5</sub>-alkyl or thiazolyloxy-C<sub>1</sub>-C<sub>5</sub>-alkyl, each of which is optionally substituted by fluorine, chlorine, bromine, amino or C<sub>1</sub>-C<sub>4</sub>-alkyl,

R<sup>2</sup> represents C<sub>1</sub>-C<sub>16</sub>-alkyl, C<sub>2</sub>-C<sub>16</sub>-alkenyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy-C<sub>2</sub>-C<sub>6</sub>-alkyl or poly-C<sub>1</sub>-C<sub>6</sub>-alkoxy-C<sub>2</sub>-C<sub>6</sub>-alkyl, each of which is optionally substituted by fluorine or chlorine,

or represents C<sub>3</sub>-C<sub>7</sub>-cycloalkyl which is optionally substituted by fluorine, chlorine, C<sub>1</sub>-C<sub>4</sub>-alkyl or C<sub>1</sub>-C<sub>4</sub>-alkoxy, or

represents phenyl or benzyl, each of which is optionally substituted by fluorine, chlorine, bromine, cyano, nitro, C<sub>1</sub>-C<sub>3</sub>-alkyl, C<sub>1</sub>-C<sub>3</sub>-alkoxy, C<sub>1</sub>-C<sub>3</sub>-halogenoalkyl, C<sub>1</sub>-C<sub>3</sub>-halogenoalkoxy,

R<sup>3</sup> represents C<sub>1</sub>-C<sub>6</sub>-alkyl which is optionally substituted by fluorine or chlorine, or represents phenyl or benzyl, each of which is optionally substituted by fluorine, chlorine, bromine, C<sub>1</sub>-C<sub>5</sub>-alkyl, C<sub>1</sub>-C<sub>5</sub>-alkoxy, C<sub>1</sub>-C<sub>3</sub>-halogenoalkyl, C<sub>1</sub>-C<sub>3</sub>-halogenoalkoxy, cyano or nitro,

R<sup>4</sup> and R<sup>5</sup> independently of one another represent C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-alkylamino, di-(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino, C<sub>1</sub>-C<sub>6</sub>-alkylthio or C<sub>3</sub>-C<sub>4</sub>-alkenylthio, each of which is optionally substituted by fluorine or chlorine, or represent phenyl, phenoxy or phenylthio, each of which is optionally substituted by fluorine, chlorine, bromine, nitro, cyano, C<sub>1</sub>-C<sub>3</sub>-alkoxy, C<sub>1</sub>-C<sub>3</sub>-halogenoalkoxy, C<sub>1</sub>-C<sub>3</sub>-alkylthio, C<sub>1</sub>-C<sub>3</sub>-halogenoalkylthio, C<sub>1</sub>-C<sub>3</sub>-alkyl or C<sub>1</sub>-C<sub>3</sub>-halogenoalkyl,

R<sup>6</sup> and R<sup>7</sup> independently of one another represent hydrogen, or represent C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>3</sub>-C<sub>6</sub>-alkenyl or C<sub>1</sub>-C<sub>6</sub>-alkoxy-C<sub>2</sub>-C<sub>6</sub>-alkyl, each of which is optionally substituted by fluorine or chlorine, or represent phenyl or benzyl, each of which is optionally substituted by fluorine, chlorine, bromine, C<sub>1</sub>-C<sub>5</sub>-alkyl, C<sub>1</sub>-C<sub>5</sub>-halogenoalkyl or C<sub>1</sub>-C<sub>5</sub>-alkoxy, or together represent a C<sub>3</sub>-C<sub>6</sub>-alkylene radical which is optionally substituted by C<sub>1</sub>-C<sub>4</sub>-alkyl and in which one methylene groups is optionally replaced by oxygen or sulphur,

R<sup>13</sup> represents hydrogen, or represents C<sub>1</sub>-C<sub>6</sub>-alkyl or C<sub>1</sub>-C<sub>6</sub>-alkoxy, each of which is optionally substituted by fluorine or chlorine, or represents C<sub>3</sub>-C<sub>7</sub>-cycloalkyl which is optionally substituted by fluorine, C<sub>1</sub>-C<sub>2</sub>-alkyl or C<sub>1</sub>-C<sub>2</sub>-alkoxy and in which one methylene group is optionally replaced by oxygen or sulphur, or represents phenyl, phenyl-C<sub>1</sub>-C<sub>3</sub>-alkyl or phenyl-C<sub>1</sub>-C<sub>2</sub>-alkoxy, each of which is optionally substituted by fluorine, chlorine, bromine, C<sub>1</sub>-C<sub>5</sub>-alkyl, C<sub>1</sub>-C<sub>5</sub>-alkoxy, C<sub>1</sub>-C<sub>2</sub>-halogenoalkyl, C<sub>1</sub>-C<sub>2</sub>-halogenoalkoxy, nitro or cyano,

R<sup>14</sup> represents hydrogen or C<sub>1</sub>-C<sub>6</sub>-alkyl or

R<sup>13</sup> and R<sup>14</sup> together represent C<sub>4</sub>-C<sub>6</sub>-alkanediyl,

R<sup>15</sup> and R<sup>16</sup> are identical or different and represent C<sub>1</sub>-C<sub>4</sub>-alkyl or

R<sup>15</sup> and R<sup>16</sup> together represent a C<sub>2</sub>-C<sub>3</sub>-alkanediyl radical which is optionally substituted by C<sub>1</sub>-C<sub>4</sub>-alkyl or by phenyl which is optionally substituted by fluorine, chlorine, bromine, C<sub>1</sub>-C<sub>2</sub>-alkyl, C<sub>1</sub>-C<sub>2</sub>-halogenoalkyl, C<sub>1</sub>-C<sub>2</sub>-alkoxy, C<sub>1</sub>-C<sub>2</sub>-halogenoalkoxy, nitro or cyano,

R<sup>17</sup> and R<sup>18</sup> independently of one another represent hydrogen, or represent C<sub>1</sub>-C<sub>8</sub>-alkyl which is optionally substituted by fluorine or chlorine, or represent phenyl which is optionally substituted by fluorine, chlorine, bromine, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>1</sub>-C<sub>2</sub>-halogenoalkyl, C<sub>1</sub>-C<sub>2</sub>-halogenoalkoxy, nitrogen or cyano, or

R<sup>17</sup> and R<sup>18</sup> together with the carbon atom to which they are bonded represent C<sub>5</sub>-C<sub>6</sub>-cycloalkyl which is optionally substituted by C<sub>1</sub>-C<sub>3</sub>-alkyl or C<sub>1</sub>-C<sub>3</sub>-alkoxy and in which one methylene group is optionally replaced by oxygen or sulphur and

R<sup>19</sup> and R<sup>20</sup> independently of one another represent C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-alkylamino, C<sub>3</sub>-C<sub>6</sub>-alkenylamino, di-(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino or di-(C<sub>3</sub>-C<sub>6</sub>-alkenyl)amino.

4. Compound of the formula (I) according to claim 1 in which

X represents fluorine, chlorine or bromine,

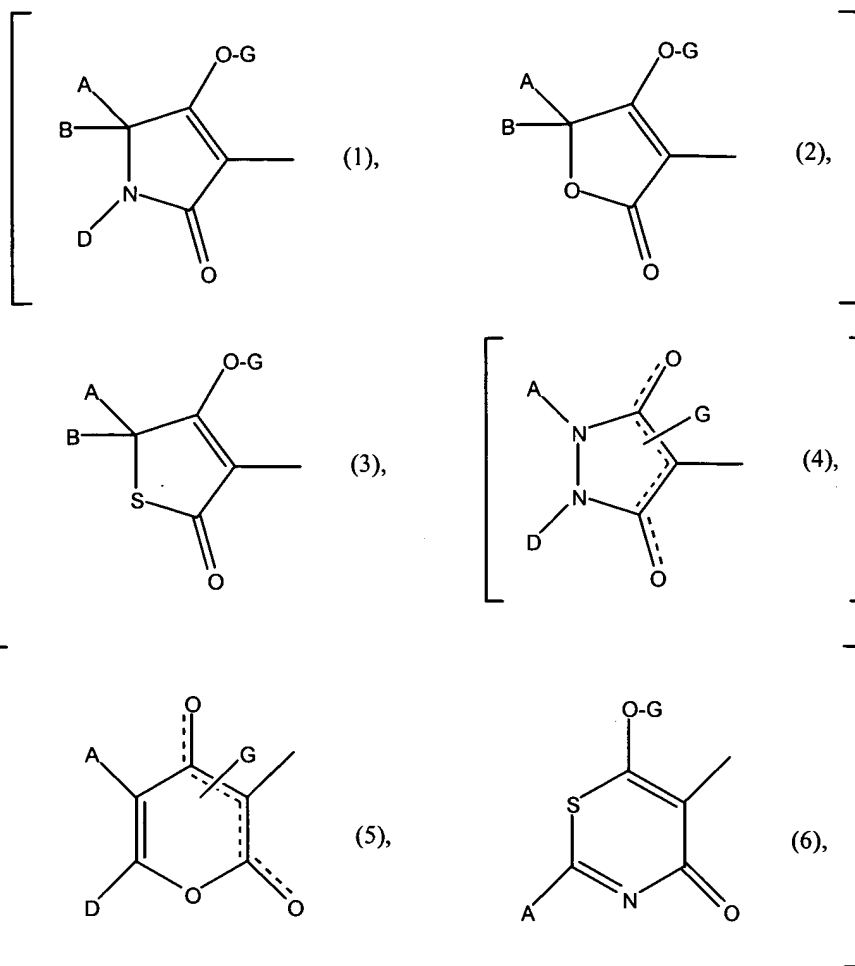
Y represents fluorine, chlorine, bromine, methyl, ethyl, n-propyl or iso-propyl,

Z represents fluorine, chlorine, bromine, methyl, ethyl, n-propyl or iso-propyl,

where always one of the substituents Y and Z represent halogen, while the other represents alkyl,

Het represents [one of the groups]





A represents hydrogen, or represents C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>2</sub>-C<sub>6</sub>-alkenyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy-C<sub>1</sub>-C<sub>4</sub>-alkyl, poly-C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>1</sub>-C<sub>4</sub>-alkyl or C<sub>1</sub>-C<sub>6</sub>-alkylthio-C<sub>1</sub>-C<sub>4</sub>-alkyl, each of which is optionally substituted by fluorine or chlorine, or represents C<sub>3</sub>-C<sub>6</sub>-cycloalkyl which is optionally substituted by fluorine, chlorine, methyl or methoxy and in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur, or represents phenyl, pyridyl or benzyl, each of which is optionally substituted by fluorine, chlorine, bromine, methyl, ethyl, n-propyl, iso-propyl, methoxy, ethoxy, trifluoromethyl,

trifluoromethoxy, cyano or nitro,

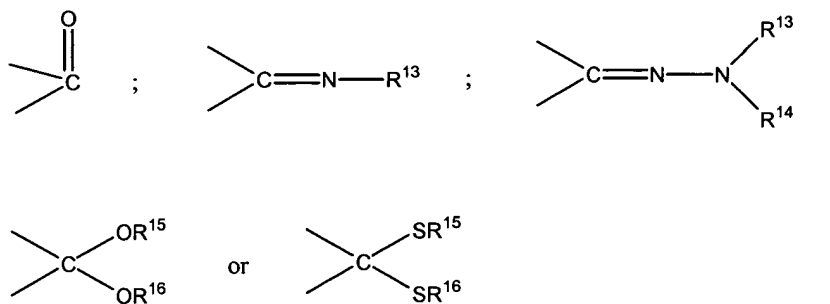
- B represents hydrogen, C<sub>1</sub>-C<sub>8</sub>-alkyl or C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>1</sub>-C<sub>2</sub>-alkyl, or
- A, B and the carbon atom to which they are bonded represent C<sub>3</sub>-C<sub>8</sub>-cycloalkyl or C<sub>5</sub>-C<sub>8</sub>-cycloalkenyl in each of which a methylene group is optionally replaced by oxygen or sulphur and which are optionally substituted by methyl, ethyl, n-propyl, iso-propyl, butyl, iso-butyl, sec-butyl, tert-butyl, cyclohexyl, trifluoromethyl, methoxy, ethoxy, n-propoxy, iso-propoxy, butoxy, iso-butoxy, sec-butoxy, tert-butoxy, methylthio, ethylthio, fluorine, chlorine or phenyl, or
- A, B and the carbon atom to which they are bonded represent C<sub>5</sub>-C<sub>6</sub>-cycloalkyl which is substituted by an alkylenediyl group which optionally contains one or two oxygen and/or sulphur atoms or by an alkylenedioxy group, this alkylenediyl or alkylenedioxy group together with the carbon atom to which it is bonded forming a further five to six-membered ring, or
- A, B and the carbon atom to which they are bonded represent C<sub>3</sub>-C<sub>6</sub>-cycloalkyl or C<sub>5</sub>-C<sub>6</sub>-cycloalkenyl in which two substituents together with the carbon atoms to which they are bonded represent C<sub>3</sub>-C<sub>4</sub>-alkanediyl, C<sub>3</sub>-C<sub>4</sub>-alkenediyl or butadienediyl, in each case one methylene group is optionally replaced by oxygen or sulphur,
- D represents hydrogen, C<sub>1</sub>-C<sub>8</sub>-alkyl, C<sub>3</sub>-C<sub>4</sub>-alkenyl, C<sub>3</sub>-C<sub>4</sub>-alkinyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy-C<sub>2</sub>-C<sub>4</sub>-alkyl, poly-C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>2</sub>-C<sub>4</sub>-alkyl or C<sub>1</sub>-C<sub>4</sub>-alkylthio-C<sub>2</sub>-C<sub>4</sub>-alkyl or C<sub>3</sub>-C<sub>6</sub>-cycloalkyl in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur, in each case optionally substituted by fluorine or chlorine, or represents phenyl, furanyl, pyridyl, thienyl, or benzyl, each of which is optionally substituted by fluorine, chlorine, bromine,

methyl, ethyl, n-propyl, iso-propyl, methoxy, ethoxy, trifluoromethyl, trifluoromethoxy, cyano or nitro,

or

A and D together represent a C<sub>3</sub>-C<sub>5</sub>-alkanediyl or C<sub>3</sub>-C<sub>5</sub>-alkenediyl group in each of which one methylene group is optionally replaced by oxygen or sulphur and which are optionally substituted by fluorine, chlorine, hydroxyl, mercapto, or by C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>1</sub>-C<sub>4</sub>-alkylthio, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, phenyl or benzyloxy, each of which is optionally substituted by fluorine or chlorine, or

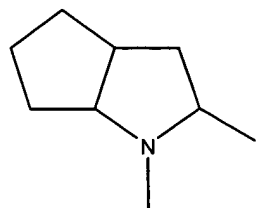
in which in each case one of the following groups



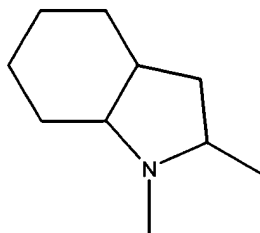
is optionally present;

or A and D (in the case of the compounds of formula (I-1)) together with the atoms to which they are bonded represent one of the following groups:

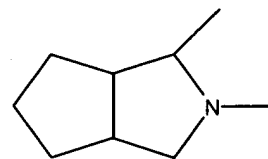
10017695-124404



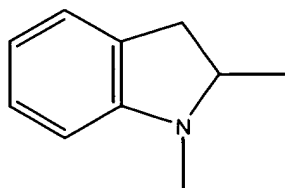
AD-1



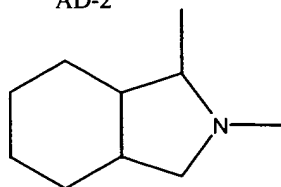
AD-2



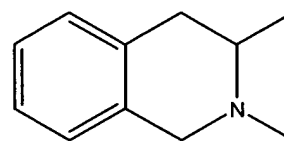
AD-4



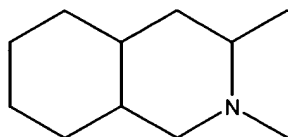
AD-6



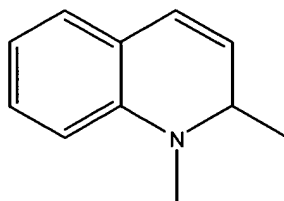
AD-8



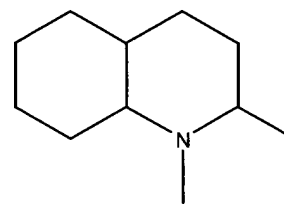
AD-10



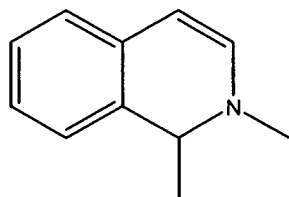
AD-12



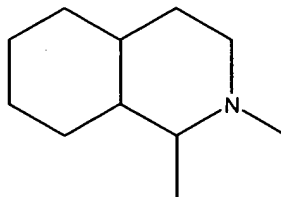
AD-14



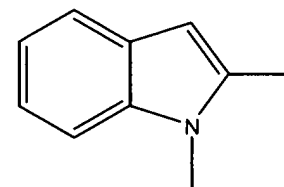
AD-15



AD-17

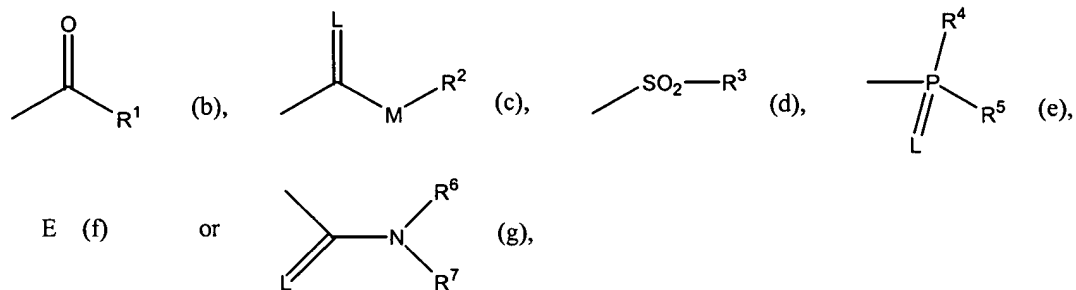


AD-18



AD-27

- G [in the event that Het represents one of the radicals (1), (2), (3), (5) or (6), represents hydrogen (a) or, in the event that Het represents one of the radicals (1), (2), (3), (4), (5) or (6), represents one of the groups] represents hydrogen (a).



in which

E represents a metal ion equivalent or an ammonium ion,

L represents oxygen or sulphur and

M represents oxygen or sulphur,

R¹ represents C<sub>1</sub>-C<sub>14</sub>-alkyl, C<sub>2</sub>-C<sub>14</sub>-alkenyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-alkylthio-C<sub>1</sub>-C<sub>6</sub>-alkyl or poly-C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>1</sub>-C<sub>4</sub>-alkyl, each of which is optionally substituted by fluorine or chlorine, or represents C<sub>3</sub>-C<sub>6</sub>-cycloalkyl which is optionally substituted by fluorine, chlorine, methyl, ethyl, n-propyl, iso-propyl, b-butyl, i-butyl, tert-butyl, methoxy, ethoxy, n-propoxy or iso-propoxy and in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur,

or represents phenyl which is optionally substituted by fluorine, chlorine, bromine, cyano, nitro, methyl, ethyl, n-propyl, i-propyl, methoxy, ethoxy, trifluoromethyl, trifluoromethoxy, methylthio, ethylthio, methylsulphonyl or ethylsulphonyl,

or represents benzyl which is optionally substituted by fluorine, chlorine, bromine, methyl, ethyl, n-propyl, i-propyl, methoxy, ethoxy, trifluoromethyl or trifluoromethoxy,

or represents furanyl, thienyl or pyridyl, each of which is optionally substituted by fluorine, chlorine, bromine, methyl or ethyl,

or represents phenoxy-C<sub>1</sub>-C<sub>4</sub>-alkyl which is optionally substituted by fluorine, chlorine, methyl or ethyl, or

represents pyridyloxy-C<sub>1</sub>-C<sub>4</sub>-alkyl, pyrimidyloxy-C<sub>1</sub>-C<sub>4</sub>-alkyl or thiazolyloxy-C<sub>1</sub>-C<sub>4</sub>-alkyl, each of which is optionally substituted by fluorine, chlorine, bromine, methyl or ethyl,

R<sup>2</sup> represents C<sub>1</sub>-C<sub>14</sub>-alkyl, C<sub>2</sub>-C<sub>14</sub>-alkenyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>2</sub>-C<sub>6</sub>-alkyl or poly-C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>2</sub>-C<sub>6</sub>-alkyl, each of which is optionally substituted by fluorine or chlorine,

or represents C<sub>3</sub>-C<sub>6</sub>-cycloalkyl which is optionally substituted by fluorine, chlorine, cyano, nitro, methyl, ethyl, n-propyl, iso-propyl or methoxy, ethoxy, trifluoromethyl or trifluoromethoxy, or

represents phenyl or benzyl, each of which is optionally substituted by fluorine, chlorine, methyl, ethyl, n-propyl, iso-propyl or methoxy, cyano, nitro, ethoxy, trifluoromethyl or trifluoromethoxy,

R<sup>3</sup> represents methyl, ethyl, propyl or isopropyl, each of which is optionally substituted by fluorine or chlorine, or represents phenyl or benzyl, each of which is optionally substituted by fluorine, chlorine, bromine, methyl, ethyl, propyl, iso-propyl, tert-butyl, methoxy, ethoxy, isopropoxy, tert-butoxy, trifluoromethyl, trifluoromethoxy, cyano or nitro,

R<sup>4</sup> and R<sup>5</sup> independently of one another represent C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>1</sub>-C<sub>4</sub>-alkylamino, di-(C<sub>1</sub>-C<sub>4</sub>-alkyl)amino or C<sub>1</sub>-C<sub>4</sub>-alkylthio, each of which is optionally substituted by fluorine or chlorine, or represent phenyl, phenoxy or phenylthio, each of which is optionally substituted by fluorine, chlorine, bromine, nitro, cyano, methyl, methoxy, trifluoromethyl or trifluoromethoxy,

R<sup>6</sup> and R<sup>7</sup> independently of one another represent hydrogen, or represent C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>3</sub>-C<sub>4</sub>-alkenyl or C<sub>1</sub>-C<sub>4</sub>-alkoxy-C<sub>2</sub>-C<sub>4</sub>-alkyl, each of which is optionally substituted by fluorine or chlorine, or represent phenyl or benzyl, each of which is optionally substituted by fluorine, chlorine, bromine, methyl, methoxy or trifluoromethyl, or together represent a C<sub>5</sub>-C<sub>6</sub>-alkylene radical which is optionally substituted by methyl or ethyl and in which one methylene groups is optionally replaced by oxygen or sulphur,

R<sup>13</sup> represents hydrogen, or represents C<sub>1</sub>-C<sub>4</sub>-alkyl or C<sub>1</sub>-C<sub>4</sub>-alkoxy, each of which is optionally substituted by fluorine or chlorine, or represents C<sub>3</sub>-C<sub>6</sub>-cycloalkyl which is optionally substituted by fluorine or chlorine, or represents C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, or represents phenyl, phenyl-C<sub>1</sub>-C<sub>2</sub>-alkyl or benzyloxy, each of which is optionally substituted by fluorine, chlorine, bromine, methyl, ethyl, iso-propyl, tert-butyl, methoxy, ethoxy, iso-propoxy, tert-butoxy, trifluoromethyl, trifluoromethoxy, nitro or cyano,

R<sup>14</sup> represents hydrogen or C<sub>1</sub>-C<sub>4</sub>-alkyl, or

R<sup>13</sup> and R<sup>14</sup> together represent C<sub>4</sub>-C<sub>6</sub>-alkanediyl,

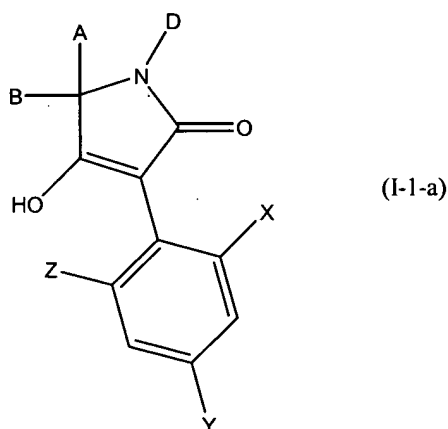
R<sup>15</sup> and R<sup>16</sup> are identical or different and represent methyl or ethyl, or

R<sup>15</sup> and R<sup>16</sup> together represent a C<sub>2</sub>-C<sub>3</sub>-alkanediyl radical which is optionally substituted

by methyl, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl or tert-butyl, or  
by phenyl which is optionally substituted by fluorine, chlorine, methoxy,  
trifluoromethyl, trifluoromethoxy, nitro or cyano.

5. Process for the preparation of compounds of the formula (I) according to Claim 1,  
characterized in that

(A) compounds of the formula (I-1-a)



in which

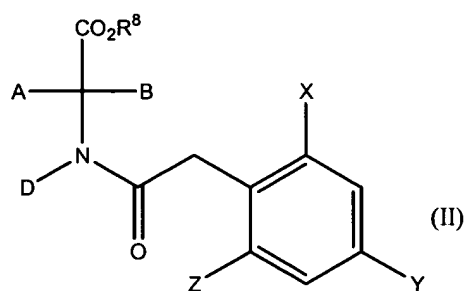
A, B, D, X, Y and Z have the abovementioned meanings,

are obtained when

compounds of the formula (II)

10017695-121401  
T04T3T 5592T00T





in which

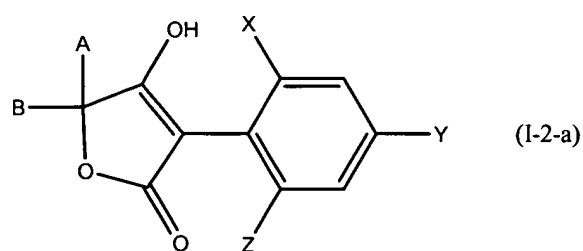
A, B, D, X, Y and Z have the abovementioned meanings,

and

$R^8$  represent alkyl,

are subjected to intramolecular condensation in the presence of a diluent and in the presence of a base,

(B) compounds of the formula (I-2-a)



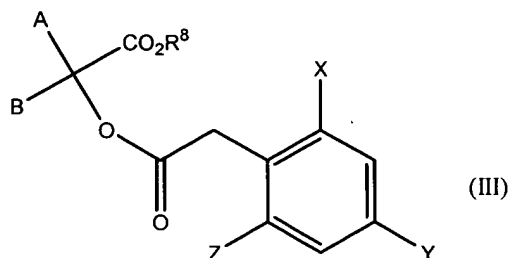
in which

A, B, X, Y and Z have the abovementioned meanings,

10017695-121401

are obtained when

compounds of the formula (III)

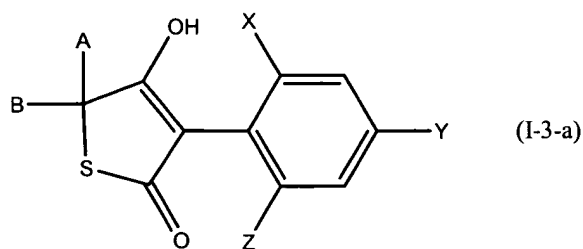


in which

A, B, X, Y, Z and R<sup>8</sup> have the abovementioned meanings,

are subjected to intramolecular condensation in the presence of a diluent and in the presence of a base,

(C) compounds of the formula (I-3-a)

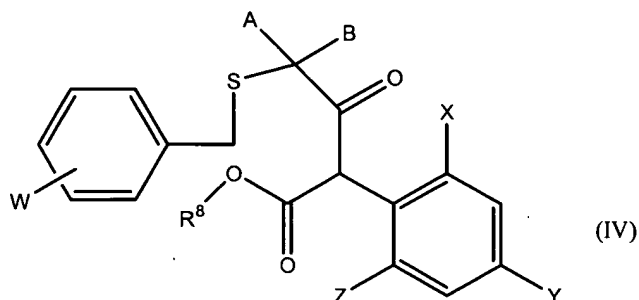


in which

A, B, X, Y and Z have the abovementioned meanings,

are obtained when

compounds of the formula (IV)



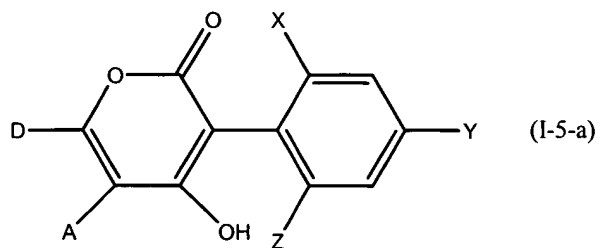
in which

A, B, X, Y, Z and  $R^8$  have the abovementioned meanings and

W represents hydrogen, halogen, alkyl or alkoxy,

are subjected to intramolecular cyclization, if appropriate in the presence of a diluent and in the presence of an acid,

(E) compound of the formula (I-5-a)

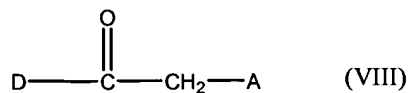


in which

A, D, X, Y and Z have the abovementioned meanings,

are obtained when

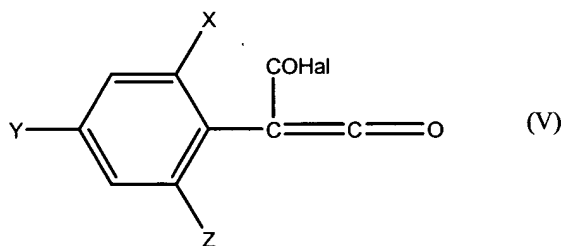
compounds of the formula (VIII)



in which

A and D have the abovementioned meanings,

are reacted with compounds of the formula (V)



in which

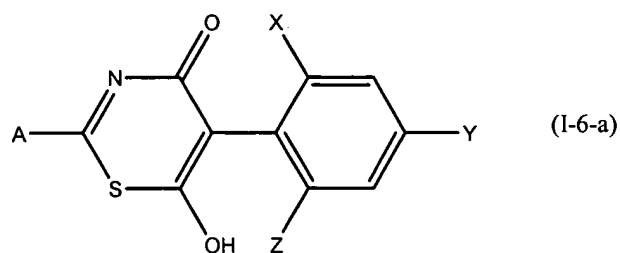
X, Y and Z have the abovementioned meanings and

Hal represents halogen,

if appropriate in the presence of a diluent and if appropriate in the presence of an acid acceptor,

(F) the compounds of the formula (I-6-a)

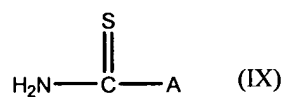
10047695-124401



in which

A, X, Y and Z have the abovementioned meanings,

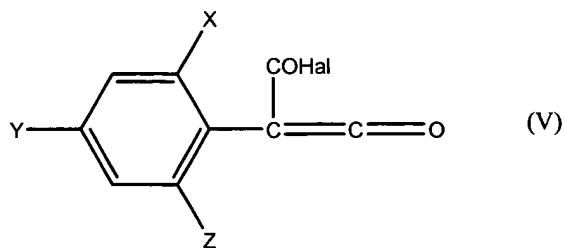
are obtained when compounds of the formula (IX)



in which

A has the abovementioned meaning,

are reacted with compounds of the formula (V)

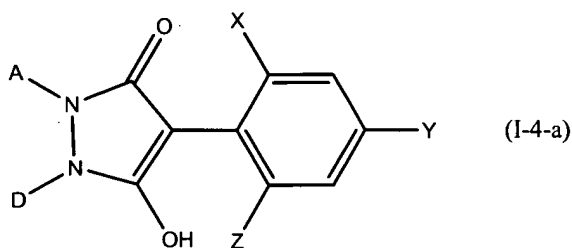


in which

Hal, X, Y and Z have the abovementioned meanings,

if appropriate in the presence of a diluent and if appropriate in the presence of an acid acceptor,

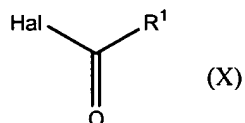
and, if appropriate, the resulting compounds of the formulae (I-1-a), (I-2-a) to (I-3-a), (I-5-a) and (I-6-a), or compounds of the formula (I-4-a)



in which

A, D, X, Y and Z have the abovementioned meanings, are in each case reacted

(G)    α)    with acid halides of the formula (X)



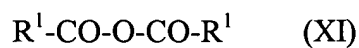
in which

R<sup>1</sup>    has the abovementioned meaning and

Hal represents halogen

or

β) with carboxylic anhydrides of the formula (XI)



in which

$R^1$  has the abovementioned meaning,

if appropriate in the presence of a diluent and if appropriate in the presence of an acid-binding agent,

or

(H) are reacted with chloroformic esters or chloroformic thioesters of the formula (XII)



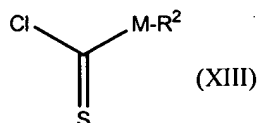
in which

$R^2$  and M have the abovementioned meanings,

if appropriate in the presence of a diluent and if appropriate in the presence of an acid-binding agent,

or

- (I)  $\alpha$ ) are reacted with chloromonothioformic esters or chlorodithioformic esters of the formula (XIII)



in which

M and R<sup>2</sup> have the abovementioned meanings,

if appropriate in the presence of a diluent and if appropriate in the presence of an acid-binding agent,

or

- $\beta$ ) are reacted with carbon disulphide and subsequently with compounds of the formula (XIV)



in which

R<sup>2</sup> has the abovementioned meanings and

Hal represents chlorine, bromine or iodine,

if appropriate in the presence of a diluent and if appropriate in the presence

10017695-121401



of a base,

or

(J) are reacted with sulphonyl chlorides of the formula (XV)



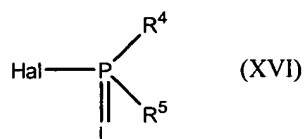
in which

$R^3$  has the abovementioned meaning,

if appropriate in the presence of a diluent and if appropriate in the presence of an acid-binding agent,

or

(K) are reacted with phosphorus compounds of the formula (XVI)



in which

$L$ ,  $R^4$  and  $R^5$  have the abovementioned meanings and

$Hal$  represents halogen,

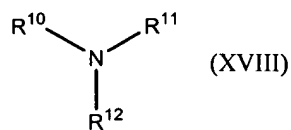
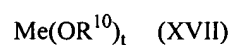
if appropriate in the presence of a diluent and if appropriate in the presence of an

10017695-121401

acid-binding agent,

or

(L) are reacted with metal compounds or amines of the formulae (XVII) or (XVIII)



in which

Me represents a mono- or divalent metal,

t represents the number 1 or 2 and

$\text{R}^{10}$ ,  $\text{R}^{11}$  and  $\text{R}^{12}$  independently of one another represent hydrogen or alkyl,

if appropriate in the presence of a diluent,

or

(M)  $\alpha$  are reacted with isocyanates or isothiocyanates of the formula (XIX)



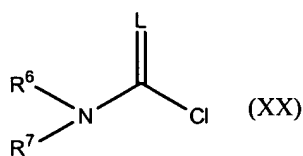
in which

$\text{R}^6$  and L have the abovementioned meanings,

10017695-121401

if appropriate in the presence of a diluent and if appropriate in the presence of a catalyst, or

- β) are reacted with carbamoyl chlorides or thiocarbamoyl chlorides of the formula (XX)



in which

L, R<sup>6</sup> and R<sup>7</sup> have the abovementioned meanings,

if appropriate in the presence of a diluent and if appropriate in the presence of an acid-binding agent.

22. A pesticidal composition comprising a pesticidally effective amount of at least one compound according to claim 1 and an extender or surface-active agent or mixture thereof.
23. A herbicidal composition comprising a herbicidally effective amount of at least one compound according to claim 1 and an extender or surface-active agent or mixture thereof.
24. A method of combatting pests comprising applying to pests and/or their environment a pesticidally effective amount of at least one compound according to claim 1.
25. A method of combatting weeds comprising applying to weeds and/or their environment a herbicidally effective amount of at least one compound according to claim 1.

26. A process for preparing a pesticidal composition or a herbicidal composition, said process comprising mixing an effective amount therefor of at least one compound according to claim 1 with an extender or surface-active agent or mixture thereof.

10017695 - 121401